

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Brett Dunstan

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Claims Amendments

1. – 29. (Canceled)

30. (New) A security door construction comprising a door frame having a door hanging upright and a closing upright against which the door closes, a door slot associated with the closing upright, a door with a hung edge and a closing edge and an offset hinge assembly mounted on the hanging upright which supports the door, whereby upon closing the door slides into the door slot and upon opening slides out of the door slot.

31. (New) A safety door construction as claimed in Claim 30, wherein the offset hinge assembly comprises a first pair of hinges connected to the door hanging upright, a second pair of hinges connected to the hung edge door and each hinge is having a hinge axis means connecting first and second pairs which maintains the hinge axis of the first pair parallel to the hinge axis of the second pair.

32. (New) A security door construction as claimed in Claim 31, wherein the means is a rigid member connecting the pockets of one pair of hinges to the pins of the other pair of hinges.

33. (New) A safety door construction as claimed in Claim 31, wherein the means is a rigid member connecting the pins of one pair of hinges to the pins of the other pair of hinges.

34. (New) A safety door construction as claimed in Claim 31, wherein the means is a rigid member connecting the pockets of one pair of hinges to the pockets of the other pair of hinges.

35. (New) A safety door construction as claimed in Claim 31, wherein the rigid member is a rod.
36. (New) A security door construction as claimed in Claim 31, wherein the hinge pockets of one pair of hinges are fixed to the adjacent hinge pockets of the other pair and the rod connects the leaves of the pair of hinges connected to the frame.
37. (New) A security door construction as claimed in Claim 31, wherein each pocket of the pair of hinges which is fixed to the frame is welded at its end to the top and bottom horizontal face of the frame and the body of the pocket is additionally welded to an upstand also welded to the top or bottom face of the frame.
38. (New) A security door construction as claimed in Claim 31, wherein the uprights of the frame are box section styles.
39. (New) A security door construction as claimed in Claim 38, wherein the door slot is in the closing style.
40. (New) A security door construction as claimed in Claim 38, wherein the frame is part of the safe and the body of the safe is made of a single plate panel which is formed into a channel section including the box section styles braced by a top plate and a bottom plate.
41. (New) A security door construction as claimed in Claim 30, wherein the slide motion is 15-25mm.
42. (New) A security door construction as claimed in Claim 30, wherein the door has a rear face with a top edge and a bottom edge, the door frame has a top rail lying behind the top edge of the door and a bottom rail lying behind the bottom edge of the door, each rail defines slot means therein and the corresponding area on the rear face of the door has hook means for engaging and disengaging the slot means when the door closes and opens.

43. (New) A security door construction as claimed in Claim 31, wherein the door is substantially planar and the door frame has a closing surface parallel to the plane of the closed door against which the door tilts to close before the door reaches the door slot.
44. (New) A security door construction as claimed in Claim 43, wherein the closing frame member is a channel section style and adjacent parallel L-section member fixed to the frame defines with the closing style, the slot for the door.
45. (New) A security door construction as claimed in Claim 31, wherein the upright members of the door frame are made of channel-section styles and an adjacent parallel L-section member fixed to the frame adjacent the door hanging style acts as a hinge support.
46. (New) A security door construction as claimed in Claim 35, wherein the door has a rotatable handle for opening and closing the door, the handle having a link which reacts against the rod joining the frame mounted hinges, causing the door to slide left or right when the handle is rotated.
47. (New) A security door construction as claimed in Claim 46, wherein the handle rotates between stops and a spring assists rotation by biasing the rotation toward one or other stop.
48. (New) A security door construction as claimed in Claim 31, wherein the door frame has a handle and a sill frame hinges are adapted for fixing to the header and sill of the door frame and the door hinges are adapted for fixing to the door.
49. (New) A security door construction as claimed in Claim 31, wherein the door is a screen door made of hollow metal extrusions with pairs of edges, and the frame hinges are adapted for fixing to a face of the frame and the door hinges are adapted for fixing to an edge of the door.
50. (New) A security door construction as claimed in Claim 48, wherein the hinge assembly is at least partly housed in the door itself.

51. (New) A security door construction as claimed in Claim 50, wherein the door hanging style defines a tunnel and the hinge assembly is housed in the tunnel at or near the support edge of the door.
52. (New) A security door construction as claimed in Claim 43, having a door closer arranged to bias the door shut in known manner and a biasing assembly associated with the door capable of sliding the door into the door slot when the door closer brings the door into register with the door slot.
53. (New) A security door construction as claimed in Claim 52, wherein the door movement caused by the biasing assembly is delayed until the door lands on the closing surface of the frame adjacent the door slot.
54. (New) A security door construction as claimed in Claim 53, wherein the biasing assembly comprises a door handle with a crank inside the door which reacts against the rod extending between the frame pivots, biasing means acting between the inside of the door and the crank in order to urge the door to slide toward the door slot, a link assembly connected to the crank which restrains the biasing means from imparting such slide motion to the door and a stop extending over at least part of the doors arc of swing which releases the link assembly at the end of the arc when the door registers with the door slot.
55. (New) A security door construction as claimed in Claim 54, wherein the arcuate stop is concentric with the hinge axis of the frame hinges.
56. (New) A safe containing a door construction as claimed in Claim 30.
57. (New) A pre-hung door comprising a casing and a security door construction as claimed in Claim 48.

58. (New) A hinge assembly for a security door construction as claimed in Claim 30, comprising a first pair of hinges connectable to a frame and a second pair of hinges connectable to a door and rod or tube connecting the frame hinges together so that the pockets of the first pair are fixed to the pockets of the second pair.